

AMENDMENTS TO THE CLAIMS

Please cancel Claims 1, 3-7, 10 and 13-18; amend Claims 11, 12 and 19; and add new Claim 20 as follows.

LISTING OF CLAIMS

1.-7. (cancelled)

8. (previously presented) A communication device using a communication method of simultaneously transmitting and receiving a plurality of N carriers to receive known signals by K (\leq N) carriers among the N carriers, the device comprising:

means for determining from the received known signals an amount of shift of amplitude and phase of each of the K carriers indicative of the known signal to determine delay information of receiving radio waves in response to thus determined amount of shift;

a detector for detecting a leading head of the receiving radio waves;

a timing determining unit for determining synchronization timing of the receiving radio waves based on detection by the detector;

a discriminator unit for determining whether the receiving radio waves have been received prior to the synchronization timing in response to the delay information;

a timing reconfiguration unit for reconfiguring the synchronization timing by means of the receiving radio waves received prior to the synchronization timing, when the discriminator unit determines that the receiving radio waves have been received prior to the synchronization timing; and

a delay information recalculating unit for determining the delay information again in response to the reconfigured synchronization timing and the received signals.

9.-10. (cancelled)

11. (currently amended) A communication device using a communication method of simultaneously transmitting and receiving a plurality of N carriers to receive known signals by K (\leq N) carriers among the plurality of N carriers, the device comprising:

a transmitter unit for transmitting known signals each having a first guard interval and data transmission signals each having a second guard interval added thereto;

a delay information calculating unit for determining from within the received known signals an amount of shift of amplitude and phase of each of the K carriers indicative of the known signals to determine a delay information of receiving radio waves in response to each of the determined amount of shift thus determined; and

a time setting unit for setting a time of the second guard interval in response to the delay information;

wherein the first guard interval is longer than the second guard interval.

12. (currently amended) The communication device according to claim 11, wherein:

the transmitter unit transmits information signals together with the second guard interval as the data transmission signals, the second guard interval being added to a leading side of the information signal; and

the time setting unit sets, when the delay information calculating unit determines delay in a plurality of receiving radio waves as the delay information, the time of the second guard interval to a value longer than a maximum delay of delays in the plurality of receiving radio waves.

13.-18: (cancelled)

19. (currently amended) The communication device according to ~~any one of claims 1, 3, 6, 8, 11, 14, 15 and 16~~ either claim 8 or claim 11, wherein:

the communication method is an orthogonal multiplexing carrier method.

20. (new) The communication device according to claim 11, wherein:

the transmitter unit further transmits header signals, each header signal having a third guard interval added thereto between the known signals and the data transmission signals; and

the third guard interval is longer than the second guard interval.